

WHAT IS CLAIMED IS:

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1. A color display system comprising:

a light source for providing a beam of white light along a light path;

at least one color modulator on said light path, said color modulator comprised of a stack of at least two dielectric layers and at least three transparent electrodes, wherein a voltage applied to said electrodes limits the wavelengths of light permitted to continue on said light path;

a controller;

a spatial light modulator on said light path, said spatial light modulator operable to selectively modulate incident light in response to signals from said controller; and

projection optics on said light path operable to focus light from said spatial light modulator on an image plane.

2. The display system of Claim 1, further comprising a prism assembly for spatially separating an illumination segment of said light path from a projection segment of said light path, said spatial light modulator located at a junction between said illumination segment and said projection segment.
3. The display system of Claim 2, wherein said color modulator is fabricated on a face of said prism assembly.
4. The display system of Claim 1, wherein said color modulator is fabricated on said spatial light modulator.
5. The display system of Claim 1, wherein said spatial light modulator is a deformable mirror device.

6. The display system of Claim 1, wherein said spatial light modulator is a liquid crystal device.
7. A color modulator comprising:
- a substrate;
  - alternating layers of electrodes and dielectric materials, wherein voltages applied to said electrodes are operable to filter an incident white light beam into a light beam of one of three primary colors.
8. The color modulator of Claim 7, wherein said dielectric material are selected from the group consisting of,  $\text{LiNbO}_3$ ,  $\text{LiTaO}_3$ ,  $\text{NH}_4\text{H}_2\text{PO}_4$ ,  $\text{KH}_2\text{PO}_4$ , and  $\text{CdTe}$ .
9. The color modulator of Claim 7, said electrodes formed of Indium Tin Oxide.
10. A method of creating a full-color image, the method comprising the steps of:
- providing a beam of white light;
  - filtering said beam of white light to produce a primary color beam of light, said filtering step performed by passing said beam of white light through a stack of at least two dielectric layers, at least one of said dielectric layers exposed to an electric field.
  - selectively modulating portions of said primary color beam of light to produce an image-bearing beam of light; and
  - focusing said image-bearing beam of light on an image plane.

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